

REMARKS

The Examiner's Action mailed on June 17, 2004, has been received and its contents carefully considered.

In this Amendment, Applicant has editorially amended the specification, amended claims 2 and 3 into independent form, amended claim 1 to better define the invention recited therein, editorially amended claim 7, and added claim 8. Claim 6 has been canceled. Claims 1, 2 and 3 are the independent claims, and claims 1-5, 7 and 8 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner has objected to the title of the invention as not being descriptive. In response thereto, the title has been amended in a manner that is clearly indicative of the invention to which the claims are directed. It is requested that this objection be withdrawn.

It is noted with great appreciation that the Examiner considers the subject matter of original dependent claims 2 and 3 as being allowable over the art of record. In response thereto, both of these claims have been amended into independent form, by including therein the subject matter of base claim 1.

The Examiner's Action has rejected claims 1 and 4-7 as being anticipated by *Oshima et al.* (JP10-161411A), *Wada et al.* (USP 5,075,724) and *Toyoshima* (JP10-198236A). It is submitted that these claims are *prima facie* patentably distinguishable over any of the cited references for at least the following reasons.

Applicant's independent claim 1 is directed to a consumable cartridge which includes, *inter alia*, a recording device that stores first information on the consumable cartridge, and an antenna that is physically separated from a body of the image forming apparatus to which the consumable cartridge is attachable. The antenna couples the consumable cartridge to the body using electro-magnetic

induction. Thus, and due to the coupling, electric power may be supplied from the body to the recording device through the antenna, and the first information can be transmitted to the body through the antenna.

By transmitting the electric power and information using electro-magnetic induction, electrodes can be eliminated which would require mechanical contact of associated structural members. Moreover, Applicant's claimed invention provides for a quick and easy means of detecting a misplacement of a consumable cartridge before the consumable cartridge has been completely installed into the image forming apparatus. By detecting misplacement of the consumable cartridge in this quick and easy manner, unacceptable toner can be prevented from being introduced into a toner chamber of the body of the image forming apparatus. For example, assume that a black toner cartridge is inadvertently attached into a mounting portion into which a yellow toner cartridge should be attached. Normally, this would result in the yellow toner remaining in the yellow toner chamber being mixed with the black toner, thus preventing its usage. Further, yellow images cannot be formed until the yellow toner chamber has been thoroughly cleaned to completely remove the mixture of yellow toner that is mixed with the black toner. In the present invention, as the toner cartridge is attached, information on the color of the toner is quickly and easily transmitted to the image forming apparatus using electro-magnetic induction, so that the user will be informed of insertion of an unacceptable cartridge at an early stage of installment of the toner cartridge. Applicant's claimed invention is not disclosed by any of the cited references.

Oshima et al. disclose storing information in a cartridge. This reference also discloses transmitting electric power using electro-magnetic induction. This reference also discloses transmitting information using radio waves or light, as

shown in Figure 3. Paragraph 0016 of this reference describes that when data is to be transmitted and received using non-contact means, light or radio waves may conveniently be used. However, and in contrast to the present invention, this reference does not disclose an antenna that couples a consumable cartridge to a body using electro-magnetic induction so that first information may be transmitted to the body. That is, this reference does not disclose any specific configuration as to how the light or radio waves are used, nor does this reference disclose or suggest that information is transmitted by electro-magnetic induction in the manner recited by claim 1. It is thus requested that at least this rejection be withdrawn.

Further, *Wada* discloses that color information is stored in a cartridge, but does not disclose a non-contact type communication means, i.e., using electro-magnetic induction to transmit first information to the body, as recited by claim 1. Instead, this reference only discloses a conventional contact type communication means or electric path that utilizes electrode strips 131A and electrodes 121A. As such, it is submitted that claim 1 is *prima facie* patentably distinguishable over this reference, and it is likewise requested that this rejection be withdrawn.

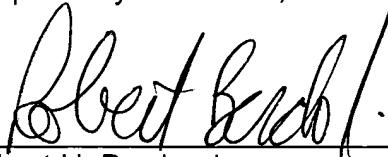
Further, *Toyoshima* discloses that color information is stored in non-volatile memories 203-206 which are mounted on respective developer units DC, DM, DY and DB. This reference also discloses in paragraph 0061 using a conventional contact type communication means, i.e., a serial communication line 202. However, and similar to the deficiencies of the above-noted references, this reference does not disclose using electro-magnetic induction to transmit the first information to a body through an antenna, as recited by claim 1. As such, it is submitted that Applicant's independent claim 1, and the claims dependent

therefrom, are *prima facie* patentably distinguishable over the cited reference, and it is requested that this claim be allowed and that this rejection be withdrawn.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,



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Date

Robert H. Berdo, Jr.
Registration No. 38,075
RABIN & BERDO, PC
Customer No. 23995
Telephone: 202-371-8976
Facsimile: 202-408-0924

RHB:vm